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EXAMINER	
THIAW, CATHERINE B	

ART UNIT	PAPER NUMBER
2458	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/595,439	WOON ET AL.	
	Examiner	Art Unit	
	CATHERINE THIAW	2458	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 January 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *29,32-36,38-52 and 55-59* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *29,32-36,38-52 and 55-59* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 April 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The present Office Action is responsive to communications received on 09/23/2005. Claims 29, 32-36, 38-52, 55-59 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. *Claims 29, 32, 33, 43-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamaru, U.S. 20020059320, in view of Yang-Huffman, U.S. 20030110252.*

3. As to claim 29, Tamaru discloses a **method of managing information exchanges in an outdoor worksite** (paragraph [0002], lines1-5) **with an office on said outdoor worksite, said outdoor worksite comprising any one of a civil engineering worksite, a landscaping worksite, a road or rail link construction worksite or a mining worksite** (paragraph [0265], lines 1-3: site office in Fig. 2A)**, by networked networking items of apparatus which perform tasks in connection with**

said outdoor worksite (paragraph [0056], lines 1-4) **and which receive and/or send data** (paragraph [0057], lines 1-3)**, the method using an electronic data network comprising management means cooperating with a plurality of communications interfaces** (paragraph [0060], lines 1-6)**, a given said networked item of apparatus having a data link with a specified communications interface** (Fig. 4: leader machine in phase 1 and communications links 6)**, said networked items of apparatus comprise mobile items** (paragraph [0253], lines 1-6: bulldozers) **and static items** (paragraph [0302], lines 1-8: machines equipped with sensors)**, wherein all said networked items of apparatus are organized in a plurality of hierarchical levels according to a determined dependency relationship of the outdoor worksite** (Fig. 4 and paragraph [0265], lines 1-19: leader machines managing followers machines, which include monitor devices and sensors devices, as read in paragraph [0302], lines 1-8, are devices considered to be in a hierarchy)**, and in that said management means which includes a processor and memory** (paragraph [0108], lines 1-2: the server has memory, and inherently has a processor too).

4. While Tamaru discloses a database in the management server apparatus storing information about the work machines (paragraph [0068], lines 1-6), Tamaru does not teach **the method comprising the following acts:**

storing a correspondence between each said networked item of apparatus and an address structure reflecting the hierarchical position of that networked item of apparatus in said determined dependency relationship of the worksite in a database;

operating by converting said address structure reflecting the hierarchical position of a said selected networked item of apparatus into a corresponding device address for accessing said selected networked item of apparatus on said electronic data network; and

using that device address to establish a communications link with said selected networked item of apparatus, via its communications interface, in response to a call addressed with an address structure reflecting the hierarchical position of said selected networked item of apparatus.

5. Yang-Huffman describes a method of collecting information from nodes in a network (paragraph [0013], lines 1-3). Networks nodes or data sources 110-1, 110-n include a SNMP agent and an internal database for storing management information (paragraph [0024], lines 1-13). A network topology application stores a snapshot of the network into a network map comprising a hierarchical structure of the network (paragraph [0027], lines 1-9). The end nodes are indicated by hostnames that can be mapped to IP, and by symbol position, label, existence of parent, layout status … (paragraph [0027], lines 21-31). Information of the networks nodes is collected by a monitoring application (paragraph [0029], lines 1-22). SNMP is known to present information about a node of a network in a tree like structure, showing grouping of related objects in sets, and the dependency of objects (paragraph [0007], lines 1-18). For instance, to access the process "sysuptime", which is a managed object in the network, a series of integer: 1.3.1.6.1.2.1.1.3 is used, representing iso.org.dod.internet.mgmt.mib2.system.sysuptime. This representation shows the

dependencies between the process, the system host, in the different levels of hierarchy within the organization. To access a node (system host) in response to a call using the hierarchical position of the node, means accessing the hostname or IP of that node, which is described with all the dependencies of the node with other nodes in the network; the IP address of the node is then used to establish communication with that node.

6. It would have been obvious to a person with ordinary skills in the art at the time of the invention to modify the teachings of Tamaru by the teachings of Yang-Huffman mapping the network devices constituted by the construction work machines into a map file using SNMP, showing the dependency relationship between the works machines and storing the information in a database, in order to implement the storing of a correspondence between each said item of apparatus and an address structure reflecting the hierarchical position of that item of apparatus and operating by converting said address structure reflecting the hierarchical position of said selected item of apparatus into a corresponding device address for accessing said selected item of apparatus on said electronic network and using the device address to establish communication with that device, as disclosed in claim 1. Using SNMP to map a hierarchical network of devices, with end nodes described with their name/IP allow a descriptive view of the dependencies in a network and could help pinpoint root cause of nodes failures (paragraph [0028], lines 14-21, from Yang-Huffman). For instance, if device1 is mapped as node1.node2.node3.node4.device1 and device2 is mapped as node1.node2.node3.device2, if device2 is functioning OK, and device1 failing, we can

deduct that node1.node2.node3 are functioning properly, that narrows the search of failure to node4 or device1.

7. As to claim 32, the combination of Tamaru and Yang-Huffman discloses the method according to claim 29, wherein said address structure is an IP (Internet Protocol) address (paragraph [0027], lines 20-24, from Yang-Huffman).

8. As to claim 33, the combination of Tamaru and Yang-Huffman discloses the method according to claim 29, wherein said address structure reflecting the hierarchical position of said selected item of apparatus (paragraph [0027], lines 1-15, from Yang-Huffman) is expressed as a directory-path (paragraph [0007], lines 1-18, from Yang-Huffman: an object in SNMP consists of a sequence of integers, each representing a level in a tree structure, which is interpreted as a directory path).

9. As to claim 43, the combination of Tamaru and Yang-Huffman discloses the method according to claim 29, further comprising an act of securing communications by providing technical means for restricting access to the network to only authorized communications interfaces (paragraph [0334], lines 1-21, from Tamaru: access to network restricted to authorized constructions companies by means of password).

10. As to claim 44, the combination of Tamaru and Yang-Huffman discloses the method according to claim 29, further comprising an act of limiting data transmissions to between only those items of apparatus which are mutually compatible or expected to communicate with each other over said electronic network (paragraphs [0069], lines 1-7, [0070], lines 1-3 and Fig. 4, from Tamaru: communications betweens the work

machines, the leader machine and the server is performed using communications interfaces 6 and 5 only).

11. As to claim 45, the combination of Tamaru and Yang-Huffman discloses the method according to claim 44, further comprising the act of providing a centralized monitoring and/or management of messages exchanged over said electronic network (paragraph [0060], lines 1-6, from Tamaru: the server apparatus collects information on work machines for management purposes and paragraph [0070], lines 1-3: messages communicated to leader machines are transmitted to server apparatus).

12. As to claim 46, the combination of Tamaru and Yang-Huffman discloses the method according to claims 29, further comprising an act of providing a centralized management of static or dynamic identification allocation to the communications interfaces operating in the network (paragraph [0330], lines 1-13, from Tamaru: the work machines' vehicle ID is transmitted to server via communication link 5).

13. As to claim 47, the combination of Tamaru and Yang-Huffman discloses the method according to claim 29, further comprising an act of executing automatically a work plan programming said tasks of said items of apparatus automatically to conduct operations in said worksite (paragraph [0042], lines 1-5, from Tamaru), commands of said work plan designating selectively to said items of apparatus (paragraph [0325], lines 1-10, from Tamaru: phases 1-3 of work plan involves different machines and commands or functions as seen in Fig. 4) using said address structure reflecting the hierarchical position (Fig. 4 and paragraph [0265], lines 1-19, from Tamaru: leader

machines managing followers machines, which include monitor devices and sensors devices, as read in paragraph [0302], lines 1-8, are devices considered to be in a hierarchy) of said selected item(s) of apparatus (paragraph [0027], lines 1-15, from Yang-Huffman).

14. As to claim 48, the combination of Tamaru and Yang-Huffman discloses the method according to claim 29, wherein said items of apparatus communicate to each other selectively, a call being made from one item of apparatus to another (paragraph [0326], lines 1-12, from Tamaru: the followers machine communicate with leader machine) using said address structure reflecting the hierarchical position of said selected item of apparatus (paragraph [0027], lines 1-25, from Yang-Huffman).

15. As to claim 49, the combination of Tamaru and Yang-Huffman discloses the method according to claim 29 for managing an automated worksite further comprising an act of sending commands to a contour changing apparatus and to an on-board apparatus through a defined protocol (paragraph [0326], lines 1-12, from Tamaru: during phase 1 of the work plan, crushers 34 or contour changing apparatus are operated and terminal device 31a on board the server apparatus transmits commands), the commands being elaborated from a predetermined model (paragraph [0334], lines 1-21, from Tamaru: parameters such as pavement thickness as predetermined and scheduled to be ordered).

16. As to claim 50, the combination of Tamaru and Yang-Huffman discloses the method according to claim 29 for managing an automated worksite in which physical

and logical addressing of the communication interfaces is separated with a unique ID other than the IP address (paragraph [0330], lines 1-13, from Tamaru: vehicle ID is used for the transmission of data).

17. As to claim 51, the combination of Tamaru and Yang-Huffman discloses the method according to claim 50, wherein the physical and logical addressing includes multiple different IP and/or unique ID addressing (paragraph [0330], lines 1-13, from Tamaru: vehicle ID could be used in the physical and logical addressing by adding the vehicle ID to the directory path, for instance to distinguish crusher 34 and 35 of Fig. 4, from Tamaru).

18. As to claim 52, Tamaru discloses **a system for managing information exchanges in an outdoor worksite with an office on said outdoor worksite** (paragraph [0002], lines1-5)**, said outdoor worksite comprising any one of a civil engineering worksite, a landscaping worksite, a road or rail link construction worksite or a mining worksite** (paragraph [0265], lines 1-3: site office in Fig. 2A)**, comprising:**

an electronic communications network connecting items of apparatus (Fig. 4: construction machines connected through network 6, in communications with management apparatus through link 5) **which perform tasks in connection with said outdoor worksite** (paragraph [0056], lines 1-4) **and which receive and/or send data** (paragraph [0057], lines 1-3)**, the items of apparatus comprise mobile items** (paragraph [0253], lines 1-6: bulldozers) **and static items** (paragraph [0302], lines 1-8:

machines equipped with sensors)**, the electronic communications network comprising:**

management means cooperating with a plurality of communications interfaces (paragraph [0060], lines 1-6), **a given said item of apparatus having a data link with a specified said communications interface** (Fig. 4: leader machine in phase 1 and communications links 6)**, wherein all said networked items of apparatus are organized in a plurality of hierarchical levels according to a determined dependency relationship of the outdoor worksite** (Fig. 4 and paragraph [0265], lines 1-19: leader machines managing followers machines, which include monitor devices and sensors devices, as read in paragraph [0302], lines 1-8, are devices considered to be in a hierarchy).

19. While Tamaru discloses a database in the management server apparatus storing information about the work machines (paragraph [0068], lines 1-6), Tamaru does not teach **management means comprising:**

means for storing a correspondence between each said item of apparatus and an address structure reflecting the hierarchical position of that item of apparatus in said determined dependency relationship of the outdoor worksite in a database;

means for operating by converting said address structure reflecting the hierarchical position of a said selected item of apparatus into a corresponding device address for accessing said selected item of apparatus on said electronic network; and

means operating on the basis of said device address to establish a

communications link with a selected item of apparatus, via its communications interface, in response to a call addressed with an address structure reflecting the hierarchical position of said selected item of apparatus.

20. Yang-Huffman describes a method of collecting information from nodes in a network (paragraph [0013], lines 1-3). Networks nodes or data sources 110-1, 110-n include a SNMP agent and an internal database for storing management information (paragraph [0024], lines 1-13). A network topology application stores a snapshot of the network into a network map comprising a hierarchical structure of the network (paragraph [0027], lines 1-9). The end nodes are indicated by hostnames that can be mapped to IP, and by symbol position, label, existence of parent, layout status … (paragraph [0027], lines 21-31). Information of the networks nodes is collected by a monitoring application (paragraph [0029], lines 1-22). SNMP is known to present information about a node of a network in a tree like structure, showing grouping of related objects in sets, and the dependency of objects (paragraph [0007], lines 1-18). For instance, to access the process "sysuptime", which is a managed object in the network, a series of integer: 1.3.1.6.1.2.1.1.3 is used, representing iso.org.dod.internet.mgmt.mib2.system.sysuptime. This representation shows the dependencies between the process, the system host, in the different levels of hierarchy within the organization. To access a node (system host) in response to a call using the hierarchical position of the node, means accessing the hostname or IP of that node, which is described with all the dependencies of the node with other nodes in the

network; the IP address of the node is then used to establish communication with that node.

21. It would have been obvious to a person with ordinary skills in the art at the time of the invention to modify the teachings of Tamaru by the teachings of Yang-Huffman mapping the network devices constituted by the construction work machines into a map file using SNMP, showing the dependency relationship between the works machines and storing the information in a database, in order to implement the storing of a correspondence between each said item of apparatus and an address structure reflecting the hierarchical position of that item of apparatus and operating by converting said address structure reflecting the hierarchical position of said selected item of apparatus into a corresponding device address for accessing said selected item of apparatus on said electronic network and using the device address to establish communication with that device, as disclosed in claim 52. Using SNMP to map a hierarchical network of devices, with end nodes described with their name/IP allow a descriptive view of the dependencies in a network and could help pinpoint root cause of nodes failures (paragraph [0028], lines 14-21, from Yang-Huffman). For instance, if device1 is mapped as node1.node2.node3.node4.device1 and device2 is mapped as node1.node2.node3.device2, if device2 is functioning OK, and device1 failing, we can deduct that node1.node2.node3 are functioning properly, that narrows the search of failure to node4 or device1.

22. As to claim 55, it has the same substance as claim 32, and therefore is rejected on the same grounds as claim 32.

23. As to claim 56, it has the same substance as claim 33, and therefore is rejected on the same grounds as claim 33.

24. *Claims 34-36 and 57-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamaru and Yang-Huffman, in view of Soderberg et al., U.S. patent No. 6,519,626, hereinafter Soderberg.*

25. As to claim 34, the combination of Tamaru and Yang-Huffman discloses the method according to claim 29; however, the combination of Tamaru and Yang-Huffman does not teach wherein said worksite is identified by a generic portion of a said address structure that comprises said address structure reflecting the hierarchical position of a selected item of apparatus.

26. Soderberg teaches converting a file system path to a URL (col. 2, lines 47-48) using a converting module and including the subdirectory structure of the file (col. 3, lines 13-30). Files with the following directory path: c:\directory \sub\file1, c:\directory \sub\file2 … would be converted into http://www.domain.com:123/subdirectory/sub/file1 or http://www.domain.com:123/subdirectory/sub/file2 ...(col. 3, lines 24-54), in which http://www.domain.com:123/subdirectory/sub/, can be considered as a fixed or generic part of different filenames, and correspond to a directory path to a common subdirectory.

27. It would have been obvious to a person with ordinary skills in the art at the time of the invention to modify the teachings of Tamaru and Yang-Huffman with the teachings of Soderberg by converting directory pathnames or work machines into URLs. In the examples given above, http://www.domain.com:123/subdirectory/sub/, could correspond to a directory path: c:\directory \sub\, where "directory" is the construction project name (paragraph [0280], lines 1-8, from Tamaru), "sub" corresponds to the leader machines in phase 1 (see Fig. 4) and file1, file2 ... correspond to the followers machines 32-35 (Fig. 4, from Tamaru). As the same project involves different phases with different machines, the project name in the directory path could be considered as generic. Including a generic portion identifying a worksite in the directory-path would easily identify work machines used in that working site.

28. As to claim 35, the combination of Tamaru and Yang-Huffman discloses the method according to claim 29; however, the combination of Tamaru and Yang-Huffman does not teach, wherein said address structure reflecting a hierarchical position of a said item of apparatus is a Uniform Resource Locator (URL), said URL having a directory-path portion corresponding to said address structure reflecting the hierarchical position of said selected item of apparatus.

29. Soderberg teaches converting a file system path to a URL (col. 2, lines 47-48) using a converting module and including the subdirectory structure of the file (col. 3, lines 13-30). Files with the following directory path: c:\directory \sub\file1, c:\directory \sub\file2 … would be converted into http://www.domain.com:123/subdirectory/sub/file1

or http://www.domain.com:123/subdirectory/sub/file2 ...(col. 3, lines 24-54), in which http://www.domain.com:123/subdirectory/sub/, reflecting the hierarchical position of the files in the directory structure. Information on the files could be then accessed using a browser pointing to the URL.

30. It would have been obvious to a person with ordinary skills in the art at the time of the invention to modify the teachings of Tamaru and Yang-Huffman with the teachings of Soderberg by converting directory pathnames or work machines into URLs. In the examples given above, http://www.domain.com:123/subdirectory/sub/, could correspond to a directory path: c:\directory \sub\, where "directory" is the construction project name (paragraph [0280], lines 1-8, from Tamaru), "sub" corresponds to the leader machines in phase 1 (see Fig. 4) and file1, file2 ... correspond to the followers machines 32-35 (Fig. 4, from Tamaru). The work machines mapped to URLs would allow an easy retrieval of information about the devices, using a web browser.

31. As to claim 36, the combination of Tamaru, Yang-Huffman and Soderberg discloses the method according to claim 35, wherein said uniform resource locator includes a hostname portion that is specific to said worksite (col.3, lines 44, from Soderberg: www.domain.com is the domain name of the server including the files, it could correspond to the server apparatus 11 managing the working machines of Tamaru).

32. As to claim 57, it has the same substance as claim 34, and therefore is rejected on the same grounds as claim 34.

33. As to claim 58, it has the same substance as claim 35, and therefore is rejected on the same grounds as claim 35.

34. As to claim 59, it has the same substance as claim 36, and therefore is rejected on the same grounds as claim 36.

35. *Claims 38-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tamaru and Yang-Huffman, in view of Uhler et al., U.S. 20010039587, hereinafter, Uhler.*

36. As to claim 38, the combination of Tamaru and Yang-Huffman discloses the method according to claim 29; however, the combination of Tamaru and Yang-Huffman does not further teach an act of converting an address structure designating an item of apparatus to be accessed in accordance with a second hierarchy , the second hierarchy being different from the hierarchy used by the management means to organize the hierarchical levels according to said determined dependency relationship, into the address in said electronic network of said designated item of apparatus.

37. However Uhler discloses classes of objects defining particular instance of objects that can have subclasses (paragraph [0056], lines 1-7, and paragraph [0058], lines 1-10: Uhler converts or represents the objects representing the network devices into classes and subclasses including variables and methods).

38. It would have been obvious to a person of ordinary skills in the art at the time of the invention to combine the teachings of Tamaru and Yang-Huffman with the teachings of Uhler creating hierarchy of classes for the objects in a network, in order to implement a method as disclosed in claim 38. For instance, a class defining attributes of devices such as mobile or static could be defined with a method using variation of coordinate of the devices with time, and further a subclass modifying the attribute of the class could be added as a responsive functionality, as disclosed in claim 39 and 42 . Such combination would have allowed defining instances of objects including variables and method specific to that class.

39. Claims 39 and 42 includes the same substance as claim 38, and therefore is rejected using the same rationale.

40. As to claim 40, the combination of Tamaru, Yang-Huffman and Uhler discloses 40 a method according to claim 39, wherein at least some items of mobile apparatus perform the act of relaying messages over said electronic network (paragraph [0061], lines 1-7, from Tamaru: work machines transmit information to leader machines by communications means 6, as seen in Fig. 4).

41. As to claim 41, the combination of Tamaru, Yang-Huffman and Uhler discloses the method according to claim 39 further comprising an act of determining a current position of items of mobile apparatus and the act of managing the distribution of messages within said electronic network according to the items' current position

(paragraph [0298], lines 1-6, from Tamaru: proper location of a machine is determined in case accident, theft …).

Response to Arguments

42. Applicants' amendments and arguments were received on 01/07/2010.

43. Applicants' amendments with respect to claims 29, 32, 46 and 52, rejected under 35 U.S.C 112, second paragraph have been fully considered and are persuasive. The rejection is withdrawn.

44. With regards to prior art rejections of the claims, Applicants argue that "Yang-Huffman does not disclose a system or method for converting a hierarchical position into a network address and that topology data in Yang-Huffman is collected for local management purpose only".

45. The examiner respectfully disagrees: Yang-Huffman describes storing the network topology into a map, showing the hierarchical organization of the network. Accessing an end node (for instance a host) in the network is performed using SNMP, by using a series of integers representing the relationship between the end node and all nodes up in the hierarchy, the integers representing node further up in the hierarchy. Yang-Huffman also discloses that end nodes are indicated by hostname that can be mapped into an IP address. Accessing an end node's IP address by using the SNMP

representation showing the hierarchical position of the node in the network amounts to converting the hierarchical position of the end node into a network address.

46. Applicants traverse the rejection for obviousness on the following grounds that: "Yang-Huffman is not within the scope of what may be considered as prior art relative to the present invention", "the combination of Tamaru and Yang-Huffman is improper" and there is no "valid reason for the combination", and finally that the examiner used "improper hindsight" for combining the references.

47. The examiner disagrees:

48. In response to applicant's argument that Yung-Huffman is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case: Tamaru discloses a work machine management system describing machines on a worksite interconnected and showing dependency relationship between the machines. Yang-Huffman 's invention is directed to managing networks objects interconnected in a hierarchy using SNMP; from the teachings of Tamaru and the teachings of Yung-Huffman, a person with ordinary skills in the art at the time of the invention would have found obvious to apply the method of Yung-Huffman into managing and accessing the interconnected work machines described by Tamaru. Using SNMP to map a hierarchical network of devices, with end nodes described with

their name/IP allow a descriptive view of the dependencies in a network and could help rapid detection of nodes failure in a network (paragraph [0028], lines 14-21, from Yang-Huffman).

49. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

50. Applicants argue that the combination of Tamaru and Yang-Huffman teaches away form Applicants' invention and that the combination would lead to a centralized Management Information Database. The examiner disagrees: the centralized database using SNMP would still allow performing the acts of: storing, operating and using devices' address as recited in the claims. Therefore, the rejection is proper and maintained in the present Office Action.

Conclusion

51. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

52. Page et al., U.S. Patent No. 7024476 disclose organizing network devices in a directory structure, with subdirectories including entries for storing the selected settings and capabilities corresponding to each device;

53. Golla et al., U.S. Patent No. 6587874 discloses devices configured in a multi-level directory;

54. Bernardi et al., U.S. 20080301298 disclose hierarchical identifier of a device based on the path from the root node to the terminal node representing the identity;

55. Gu et al., U.S. 20040260800 discloses discovering and selecting devices using URLs in a peer network;

56. Reeves et al., U.S. 20030131113, disclose managing tasks in devices on multiples levels;

57. Bearden et al., U.S. 20030097438 discloses mapping routers and the links that join them;

58. Parupudi et al., U.S. Patent No. 7493565 disclose determining the location of devices by traversing tree structures comprising multiple nodes;

59. Ali et al., U.S. Patent No. 7222292 disclose accessing tasks corresponding to nodes in a hierarchy, using URL in a user interface.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CATHERINE THIAW whose telephone number is (571)270-1138. The examiner can normally be reached on 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOSEPH AVELLINO can be reached on 571-272-3905. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. T./ 03/31/2010
Examiner, Art Unit 2458

/Joseph E. Avellino/
Supervisory Patent Examiner, Art Unit 2458